

## Section Description

I-I' is a strike-oriented section that traverses the middle part of the Coastal Plain. Originating at a core hole in eastern Georgia, the section runs in a northeasterly direction passing through Allendale, Bamberg, Orangeburg, Clarendon, and Florence Counties, terminating at a water well in the eastern part of Marion County near the SC-NC border. Four core holes and eight water wells were used to construct the section. One inch on the vertical scale is equivalent to 200 feet of depth. The distance, in miles, between two adjacent wells is provided on the section.

Moving from west to east along the section line, the first well on the section is the **Millhaven** well-cluster site located in northeastern Screven County, Georgia. Drilled during 1991-94 by the U.S. Geological Survey (USGS), the site was constructed to characterize the geologic, hydrologic, and water-quality characteristics of the aquifers and confining units of the area ([USGS GGS-IC-99](#)). A core hole was drilled to bedrock and five monitoring wells were constructed at the site.

Crossing into South Carolina, well **ALL-348** is a core hole drilled in 1989 at the C-10 well-cluster site in Allendale County ([SCWRC Open-File Report 32](#)). The C-well sites were funded by the U.S. Department of Energy and drilled by the South Carolina Water Resources Commission (SCWRC) in the late 1980s and early 1990s. Each of the C-well sites—there are a total of eight—has a continuous core drilled to bedrock, geophysical logs, and up to 10 monitoring wells. Information from the cores was used to delineate and map the hydrogeologic units around the outside perimeter of the Savannah River Site (SRS), and wells were constructed in each major aquifer to determine vertical hydraulic gradients and to establish a permanent observational well network around SRS ([SCDNR Open-File Report 1](#)). In addition to the core hole, there are 10 monitoring wells at the C-10 site, most of which are monitored by SCDNR for water levels. An aquifer test of the Gordon aquifer at the site yielded a transmissivity of 1,096 ft<sup>2</sup>/d (feet squared per day) pumping at a rate of 197 gpm (gallons per minute), and a test of the Crouch Branch aquifer produced a transmissivity of 7,427 ft<sup>2</sup>/d pumping at a rate of 206 gpm.

Well **BAM-68** is a core hole drilled by the USGS in 1986 at Rivers Bridge State Park in Bamberg County to obtain stratigraphic information. A monitoring well was completed in the Gordon aquifer that is used by SCDNR in the development of potentiometric maps of the aquifer. Continuing along the section line, well **ORG-461** is a public supply well drilled in 2003 for the Town of Branchville. Completed in the McQueen Branch aquifer, an aquifer test produced a transmissivity of 2,400 ft<sup>2</sup>/d (feet squared per day) pumping at a rate of 948 gpm (gallons per minute). Located in southern Orangeburg County, well **ORG-108** is a public supply well drilled in 1980 for the Town of Bowman. Completed in both the Crouch Branch and McQueen Branch aquifers, an aquifer test yielded a transmissivity of 19,000 ft<sup>2</sup>/d pumping at a rate of 1,100 gpm. Drilled in 1984, **ORG-262** is a public supply well for the Town of Ellore in northeast Orangeburg County. Completed in the McQueen Branch and Charleston aquifers, the well was tested at a pumping rate of 800 gpm.

Continuing to the northeast, well **CLA-56** was a test hole drilled for a crop irrigation well in 1985 at Flowers Farm in western Clarendon County and **CLA-64** is a public supply well for the Town of Manning. Drilled in 1994 and completed in both the McQueen Branch and Charleston aquifers, an aquifer test of well **CLA-64** produced a transmissivity of 4,000 ft<sup>2</sup>/d pumping at a rate of 757 gpm.

Well **FLO-274** is a core hole drilled by the USGS in 1990 at the Lake City Municipal Airport (also known as CJ Evans Field) in the south-central part of Florence County ([USGS Open-File 9458](#)). Two wells were completed at the site by the USGS—one in the Crouch Branch aquifer and one in the McQueen Branch

aquifer. Both wells are currently monitored by SCDNR for water levels. In 2019, SCDNR completed a shallow, water-table well in the surficial aquifer at the site and monitors water levels for drought assessment purposes. Well **FLO-317** is a public supply well drilled in 2000 for the Town of Pamplico. Screened in both the Crouch Branch and McQueen Branch aquifers, an aquifer test yielded a transmissivity of 2,000 ft<sup>2</sup>/d pumping at a rate of 350 gpm.

Well **MRN-125** is a public supply well drilled in 1997 for the City of Marion. Completed in parts of the Crouch Branch, McQueen Branch, and Charleston aquifers, an aquifer test produced a transmissivity of 1,300 ft<sup>2</sup>/d pumping at a rate of 550 gpm. The last well on the section, **MRN-89**, is a public supply well drilled in 1979 for the Town of Mullins in eastern Marion County. Completed in both the Crouch Branch and McQueen Branch aquifers, an aquifer test of the well produced a transmissivity of 1,600 ft<sup>2</sup>/d pumping at a rate of 602 gpm.

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